

### REMARKS

In a first Office Action dated September 8, 2003 (paper no. 5), the Examiner rejected claims 1-11 under 35 U.S.C. §103(a) as being unpatentable over Rinchiuso et al. (U.S. patent no. 6,144,651, hereinafter referred to as "Rinchiuso") in view of Chinitz et al. (U.S. patent no. 5,914,958, hereinafter referred to as "Chinitz"). The Examiner further objected to the title as not being descriptive and requested that the applicants fill in a patent number that was left blank. The rejections and objections are traversed and reconsideration is hereby respectfully requested.

The Examiner rejected claims 1-11 under 35 U.S.C. §103(a) as being unpatentable over Rinchiuso in view of Chinitz. In particular, the Examiner stated that Rinchiuso discloses receiving multiple uplink transmissions from a plurality of remote units (col. 2, lines 12-20), determining multiple remote units (col. 3, lines 18-34), combining uplink transmissions of the multiple uplink transmissions that are associated with a subset of the multiple remote units to produce a combined signal (FIG. 6, col. 3, lines 18-34), and transmitting the combined signal to a base station to be broadcast via a downlink communication signals to the multiple remote units (FIG. 6, col. 7, lines 15-40). The Examiner acknowledged that Rinchiuso does not disclose a subset of the multiple remote units that is determined based on an energy of an uplink transmission of each remote unit of the multiple remote units. However, the Examiner contended that this is disclosed by Chinitz (FIG. 5) and that since Rinchiuso and Chinitz are both in the filed of multicast communications it would have been obvious to one of ordinary skill in the art to combine the two.

The applicants respectfully disagree with the Examiner's interpretation of Rinchiuso and Chinitz. Rinchiuso merely teaches downlink transmission of multicast data via a downlink common communication channel. Rinchiuso teaches nothing of receiving uplink transmissions from multiple remote units and combining the uplink transmissions to produce a combined signal for downlink transmission. That is, in col. 3, lines 18-34 cited by the Examiner, a base station receives a request from a remote unit to participate in a multicast session and, in response to the request, joins the session. The base station then assigns a downlink common supplemental channel, that is, a high speed

data channel, to all remote units serviced by the base station and participating in the session. That is, the base station allocates a downlink common supplemental channel for broadcast of the session data to the participating remote units, which downlink common supplemental channel utilizes two spreading codes. This is also what is taught in FIG. 6 and column 7, lines 15-40, of Rinchiuso. Nowhere do the sections of Rinchiuso cited by the Examiner teach anything concerning uplink transmissions during a multicast communication session, let alone receiving uplink transmissions from multiple remote units and combining the uplink transmissions to produce a combined signal for downlink transmission.

Chinitz teaches an implementation of a dispatch system in CDMA. In a dispatch system, such as that taught by Chinitz, only a single remote unit may reserve the floor (that is, is allowed to talk) at any one time. As a result, only that one remote unit may transmit on the uplink, and only the uplink transmissions of that one remote unit are transmitted on the downlink (to the non-talking units) at any particular time, which uplink and downlink communications are transmitted via uplink and downlink channels comprising orthogonal codes. Chinitz further teaches, in FIG. 5 cited by the Examiner, that in order to preserve system bandwidth, each remote unit may communicate with the infrastructure via a low-rate reverse link signaling channel when setting up the call, rather than using a high-rate reverse link signaling channel. Chinitz teaches nothing concerning receiving uplink transmissions from multiple remote units and combining the uplink transmissions to produce a combined signal for downlink transmission, and teaches nothing concerning determining a subset of the multiple remote units based on an energy of an uplink transmission of each remote unit of the multiple remote units.

Therefore, neither Rinchiuso or Chinitz, individually or in combination, teach the limitations of claim 1 of receiving multiple uplink transmissions from multiple remote units, determining a subset of the multiple remote units, wherein the subset is determined based on an energy of an uplink transmission of each remote from the multiple remote units, combining uplink transmissions of the multiple uplink transmissions that are associated with the subset to produce a combined signal, and transmitting the combined signal to a base station to be broadcast via a downlink communication signal to the

multiple remote units. Accordingly, the applicants respectfully request that claim 1 may now be passed to allowance.

Since claims 2-5 depend upon allowable claim 1, the applicants respectfully request that claims 2-5 may now be passed to allowance.

Claim 6 includes limitations of receiving a first multiple uplink voice transmissions from multiple remote units, determining a second multiple uplink voice transmissions from the first multiple uplink voice transmissions, wherein the second multiple uplink voice transmissions are associated with a subset of the multiple remote units and are determined based on an energy of their transmission, combining the second multiple uplink voice transmissions, and transmitting the combined uplink voice transmissions to a base station to be broadcast via a downlink voice channel to the multiple remote units. As noted above, these limitations are not taught by Rinchiuso or Chinitz, individually or in combination. Accordingly, the applicants respectfully request that claim 6 may now be passed to allowance.

Since claims 7 and 8 depend upon allowable claim 6, the applicants respectfully request that claims 7 and 8 may now be passed to allowance.

Claim 9 provides a logic unit having a first multiple uplink transmissions from a multiple remote units as an input and outputting a second multiple uplink transmissions taken from the first multiple uplink transmissions, wherein the second multiple uplink transmissions are associated with a subset of the multiple remote units and are determined based on an energy of each uplink transmission of the first multiple uplink transmissions. Claim 9 further provides a transcoder having the second multiple uplink transmissions as an input and outputting a signal equivalent to the combination of the second multiple uplink transmissions. As noted above, nowhere does Rinchiuso or Chinitz, individually or in combination, teach such a logic unit and transcoder. Accordingly, the applicants respectfully request that claim 9 may now be passed to allowance.

Since claims 10 and 11 depend upon allowable claim 9, the applicants respectfully request that claims 10 and 11 may now be passed to allowance.

In compliance with the objections of the Examiner, the applicants have amended the title of the specification and the paragraph beginning on page 5, line 18, of the specification.

As the applicants have overcome all substantive rejections and objections given by the Examiner and have complied with all requests properly presented by the Examiner, the applicants contend that this Amendment, with the above discussion, overcomes the Examiner's objections to and rejections of the pending claims. Therefore, the applicants respectfully solicit allowance of the application. If the Examiner is of the opinion that any issues regarding the status of the claims remain after this response, the Examiner is invited to contact the undersigned representative to expedite resolution of the matter.

Respectfully submitted,  
Shaowei Pan

By: 

Steven A. May  
Attorney for Applicants  
Registration No. 44,912  
Phone No.: 847/576-3635  
Fax No.: 847/576-3750